

CLAIMS

What is claimed is:

1. A method for treating tissue, the method comprising:
collecting a selected portion of tissue, and securing said portion of tissue adjacent to
an energy transmitting element;
transmitting electromagnetic radiation from said energy transmitting element; and
transmitting said electromagnetic radiation until target cells in said portion of tissue
are modified.
2. The method of claim 1, comprising receiving said electromagnetic radiation at
an energy transmitting element.
3. The method of claim 1, comprising cooling said energy transmitting element.
4. The method of claim 1, comprising applying an electromagnetic conductive
medium to a surface area of said tissue portion.
5. The method of claim 1, comprising measuring the volume of said secured
portion of tissue.
6. The method of claim 1, comprising extracting modified cells from said tissue
portion.
7. The method of claim 1, wherein said collection of said portion of tissue includes
pinching said portion of tissue.
8. The method of claim 1, wherein said collection of said portion of tissue includes
stretching said portion of tissue.
9. The method of claim 1, wherein said electromagnetic radiation is selected from
the group consisting of ultrasonic energy, Intense Pulse Light, laser energy, blue
light, and radio frequency energy.
10. The method of claim 1, comprising generating production of proteins for use in
replacing the undesirable tissue.
11. The method of claim 1, comprising destroying degraded tissue elements.
12. The method of claim 1, comprising generating production of proteins for use in
replacing the undesirable tissue.

13. The method of claim 12, wherein said proteins are to be used in treatments of wrinkled tissue.
14. The method of claim 12, wherein said protein is collagen.
15. The method of claim 12, wherein said protein is elastine.
16. A system to treat tissue, the system comprising:
 - an energy source;
 - an energy transmitting element; and
 - a holding mechanism adapted to hold a fold of tissue, such that electromagnetic radiation emitted by said energy transmitting element modifies the undesirable elements in said fold of tissue.
17. The system of claim 16, wherein said holding mechanism is adapted to hold a fold of tissue, such that electromagnetic radiation emitted by said energy transmitting element is received by a second energy transmitting element.
18. The system of claim 16, comprising a suction apparatus associated with said holding mechanism.
19. The system of claim 16, comprising a tissue volume measuring apparatus associated with said holding mechanism.
20. The system of claim 16, comprising an electromagnetic radiation conductor.
21. The system of claim 16, comprising a cooling sub-system.
22. The system of claim 16, comprising an electronically conductive medium.
23. The system of claim 16, comprising a reflective surface to intensify light energy on target tissue.
24. The system of claim 16, wherein said energy source is selected from the group consisting of laser source, Intensive Pulse Light source, ultrasonic energy source, blue light source, and radio frequency source.
25. An apparatus to treat tissue, the apparatus comprising:
 - a hand piece comprising an energy transmitting element and a mechanism for holding a portion of tissue adjacent to said energy transmitting element.
26. The apparatus of claim 25, wherein said hand piece is adapted to hold a portion of tissue, such that energy emitted by said energy transmitting element is received by a second energy transmitting element.

27. The apparatus of claim 25, wherein said hand piece comprises a suction mechanism.
28. The apparatus of claim 25, wherein said hand piece comprises a tissue volume measurement apparatus.
29. The apparatus of claim 25, comprising a conductor to enable conduction of electric current from an energy source to said energy transmitting element.
30. The apparatus of claim 25, comprising a conductor to enable conduction of electromagnetic radiation from an energy source to said energy transmitting element.
31. The apparatus of claim 25, comprising a conducting medium to control conduction of electric current from said energy transmitting element to said tissue.
32. The apparatus of claim 25, comprising a conducting medium to control conduction of electromagnetic radiation from said energy transmitting element to said tissue.
33. A method for treating tissue, the method comprising:
collecting a selected portion of tissue, and securing said portion of tissue between a plurality of energy transmission elements;
transmitting electric current between said energy transmission elements; and
transmitting said electric current until selected cells in said portion of tissue have been modified.
34. The method of claim 33, comprising cooling said energy transmission/receiving elements.
35. The method of claim 33, comprising applying an electronically conductive medium to the surface area of said tissue portion.
36. The method of claim 33, comprising measuring the volume of said secured portion of tissue.
37. The method of claim 33, comprising extracting modified cells from said tissue portion.
38. The method of claim 33, wherein said collection of said portion of tissue includes pinching said portion of tissue.

39. The method of claim 33, wherein said collection of said portion of tissue includes stretching said portion of tissue.
40. The method of claim 33 comprising destroying degraded tissue elements.
41. The method of claim 33, comprising extracting modified cells from said tissue portion.
42. The method of claim 33, comprising generating production of proteins for use in replacing the undesirable tissue.
43. The method of claim 42, wherein said proteins are to be used in treatments of wrinkled tissue.
44. The method of claim 42, wherein said protein is collagen.
45. The method of claim 42, wherein said protein is elastine.
46. A method for treating adipose cells, the method comprising:
collecting a selected portion of tissue, and placing said portion of tissue adjacent to an energy transmitting element;
transmitting electromagnetic radiation from said energy transmitting elements; and
transmitting said electromagnetic radiation until the temperature of adipose cells in said portion of tissue reaches a level at which the adipose cells are modified.
47. The method of claim 46, comprising cooling said energy transmitting element.
48. The method of claim 46, comprising applying an electromagnetic conductive medium to the surface area of said tissue portion.
49. The method of claim 46, comprising extracting modified cells from said tissue portion.
50. A method for treating adipose cells, the method comprising:
collecting a selected portion of tissue, and placing said portion of tissue between a plurality of electrodes;
transmitting an electric current between said electrodes; and
transmitting said current until the temperature of adipose cells in said portion of tissue reaches a level at which the adipose cells are modified.
51. The method of claim 50, comprising cooling said electrodes.
52. The method of claim 50, comprising applying an electronically conductive medium to the surface area of said tissue portion.

53. A tissue treating method, comprising:
collecting a selected portion of tissue, and placing said portion of tissue adjacent to
an energy transmitting element;
transmitting electromagnetic radiation to said energy transmitting element; and
generating heat in a blood vessel, said heat capable of coagulating blood in said
blood vessel.
54. The method of claim 53, comprising cooling the skin surface before applying
said electromagnetic radiation.
55. The method of claim 53, comprising dissipating vascular lesions.
56. A tissue treating method, comprising:
collecting a selected portion of tissue, and placing said portion of tissue between a
plurality of energy transmitting elements;
applying electric current to said energy transmitting elements; and
generating heat in a blood vessel, said heat capable of coagulating blood in said
blood vessel.
57. The method of claim 56, comprising cooling the skin surface before applying
said electric current.
58. An acne treating method, comprising:
collecting a selected portion of tissue, and placing said portion of tissue adjacent to
an energy transmitting element;
transmitting blue light between said energy transmitting element; and
transmitting said blue light until target cells in said portion of tissue are modified.
59. The method of claim 58, comprising changing said blue light from the blue
portion of the light spectrum to the ultraviolet B portion.
60. The method of claim 58, comprising changing said blue light from the blue
portion of the light spectrum to the ultraviolet A portion.
61. The method of claim 58, wherein said energy transmitting element includes
sapphire.
62. A tattoo ink removal method, comprising:
selecting a portion of tissue for treatment, said portion including tattoo ink;

collecting a selected portion of tissue, and placing said portion of tissue adjacent to an energy transmitting element, said portion including tattoo ink; transmitting said electromagnetic radiation to said energy transmitting element; and transmitting said electromagnetic radiation until target cells in said portion of tissue are modified.

63. The method of claim 62, comprising cooling said energy transmitting element.

64. The method of claim 62, comprising applying an electromagnetic conductive medium to the surface area of said tissue portion.

65. The method of claim 62, comprising extracting modified cells from said tissue portion.

66. A tattoo ink removal method, comprising:

collecting a selected portion of tissue, and placing said portion of tissue between a plurality of energy transmitting elements, said portion including tattoo ink; applying electric current between said energy transmitting elements; and applying said electric current until target cells in said portion of tissue are modified.

67. The method of claim 66, comprising cooling said energy transmitting elements.

68. The method of claim 66, comprising applying an electronic conductive medium to the surface area of said tissue portion.